

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

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In the matter, on the Commission's own motion,)	
requiring DTE ELECTRIC COMPANY to file a)	
report regarding strategies for education, outreach,)	Case No. U-17936
marketing, and customer support of time of use rates)	
and dynamic peak pricing.)	
_____)	

In the matter, on the Commission's own motion,)	
requiring CONSUMERS ENERGY COMPANY to file)	
a report regarding strategies for education, outreach,)	Case No. U-18013
marketing, and customer support of time of use rates)	
and dynamic peak pricing.)	
_____)	

At the November 7, 2016 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Norman J. Saari, Commissioner
Hon. Rachael A. Eubanks, Commissioner

ORDER

With notice of impending power plant retirements, and considering the challenges associated with meeting future electric capacity needs, the Commission began a process of examining energy generation alternatives including demand response (DR),¹ which can be used as a source of capacity for reliability and as an economic resource at times of high market prices. Demand

¹ The Federal Energy Regulatory Commission defines demand response as "Changes in electric usage by demand-side resources from their normal consumption patterns in response to changes in the price of electricity over time, or to incentive payments designed to induce lower electricity use at times of high wholesale market prices or when system reliability is jeopardized."

response can also be targeted in geographic areas to relieve congestion on the distribution system during periods of peak consumption.

Because customers can be encouraged through rate design to reduce their consumption at peak periods when demand for electricity is highest, the Commission ordered DTE Electric Company (DTE Electric) and Consumers Energy Company (Consumers) to make time of use (TOU) rates available for all customers with advanced metering infrastructure (AMI). The Commission also created a DR Team to review best practices and potential benefits to utility customers associated with DR as an economic means to avoid market purchases or the construction of new generation.

In the June 15, 2015 order in Case No. U-17689, the Commission directed DTE Electric Company (DTE Electric) to file a report describing the utility's strategies for education, outreach, marketing, and customer support concerning TOU rates and other alternative pricing options that can be used to reduce peak demand. On September 14, 2015, DTE Electric filed its report in Docket No. U-17936. The utility stated that it offers both behavioral and direct control DR options, including TOU rates, critical peak pricing, curtailable load rates, and interruptible load rates. DTE Electric stated that its new Demand Side Management (DSM) organization focuses on demand side alternatives such as demand response, distributed customer generation, and peak demand reduction, and is supported by its Business Planning and Development organization. DTE Electric stated that the DSM organization works with its generation strategy and integrated resource planning teams to determine when demand side resources are viable alternatives within the company's long-term plan. This organization is also responsible for deployment and management of the existing demand response resources and TOU rates, including DTE Electric's interruptible air conditioning rate, dynamic peak pricing program, and behavior demand response pilot. The report also provided information about DTE Electric's TOU offerings.

Similarly, in the June 30, 2015 order in Case No. U-17688, the Commission directed Consumers Energy Company (Consumers) to file a report describing the utility's strategies for education, outreach, marketing, and customer support of TOU rates and other dynamic peak pricing options. On January 5, 2016, Consumers filed its report in Docket No. U-18013. Like DTE Electric, Consumers offers both behavioral and direct control demand response options, including TOU, curtailable load, and interruptible load rates. In the report, Consumers provided information on its current TOU rates and electric vehicle TOU options for residential customers, and on its commercial and industrial TOU rates. Consumers stated that in 2015, the company performed a commercial and industrial (C&I) demand response pilot, and will offer a new demand response program starting in 2016. Consumers described the Peak Power Savers (PPS) and Dynamic Peak Pricing (DPP) programs, which the utility plans to make available to residential customers with advanced metering infrastructure (AMI). These programs are based on results from pilots conducted in 2010. Consumers reports that PPS will be made available to customers sometime in 2016 and DPP in January 2017.

After a review of the companies' reports, the Commission issued an order on March 29, 2016, requesting information from interested persons regarding the following questions:

A. In light of the utilities' filings, how should progress be measured going forward? For example, should there be marketing goal(s) overall or per rate class for participation? Should those goals be associated with a timeline, a budget, and/or metrics to measure the awareness and participation level impacts of specific outreach or marketing efforts?

B. Should review of these efforts take place in rate cases or through an informal collaborative, or a combination of the two, to ensure (i) that DR is considered along with supply-side options, and (ii) the accountability and cost effectiveness of the efforts? Many aspects of DR involve management decisions. In light of the fact that DR resources can be used to offset capital investments, how should the Commission provide oversight?

C. What are the best practices for marketing utility DR programs that have the highest potential for enrollment, and thus for achieving the benefits of DR?

Comments on these questions were due by April 28, 2016, and responsive comments were due by May 12, 2016.

In addition, the Commission directed the DR Team to explore the feasibility of conducting a statewide study of DR potential in Michigan. The Commission requested that the DR Team evaluate a study to examine the capability to reduce electric consumption and peak demand through the implementation of DR technologies and practices in residential, commercial, and industrial facilities in Michigan. The DR Team filed the DR study feasibility report on September 29, 2016.

Comments

The Commission received over one hundred comments, most of which were filed in both dockets. Sixteen organizations, including the utilities, advocacy organizations, and businesses provided comments. The majority of the comments came from individuals who expressed general opposition to DR programs, mandatory TOU rates, and the AMI that is required to implement many of these DR initiatives.

In response to these individual comments, the Commission observes that although “opt-out” TOU programs have been successfully piloted by several utilities around the country, the Commission is unaware of any jurisdiction that mandates TOU rates, nor is there any intention to require individual customers to participate in TOU programs in Michigan. In addition, the Commission points out that for those that have concerns about AMI, both DTE Electric and Consumers have approved opt-out tariffs, and the Commission continues to monitor developments in health, safety, privacy, and cybersecurity with respect to AMI and grid modernization. Finally, although it may not be possible for every customer to participate directly in TOU or DR programs, the Commission notes that the implementation of cost-effective DR can potentially save all

customers money on power supply costs and through the deferral of utility capital investments in distribution or generation facilities.

The remaining comments are addressed by topic area below.

Demand Response Metrics

Consumers observes that as new DR offerings are implemented, measures of progress will change as the programs mature. According to Consumers, understanding how customers view and engage in DR programs is an important step in implementing a long-term strategy. In the near term, the focus of new offerings should be on generating customer participation across the portfolio, allowing the company to learn which offerings customers prefer and to adapt its mix of programs to those which customers find most valuable. Once customers are enrolled in DR programs, Consumers will call DR events. As these DR events are enabled, DR-related data will be collected and evaluated to better understand and forecast the demand reduction capabilities for each program and as a portfolio of programs. Once a program mix is proven to deliver customer value and reliable demand response capabilities, they should also be evaluated for cost effectiveness and reliability of the capacity provided. Consumers suggested that DR program metrics include: (1) number of customers enrolled by rate class; (2) megawatts (MW) enabled; and (3) cost per MW enabled.

DTE Electric recommended that DR progress be measured annually, with reports focused on research, DR pilot activities and findings, and reports on available program activities including: (1) avoided capacity claimed by each program; (2) cost to achieve that avoided capacity; and (3) a cost comparison to other resource options including new generation and market purchases.

The Staff comments that DR programs should be assessed by key metrics including customer participation, amount of peak load reduction, and the amount of peak capacity the utility

anticipates achieving through the DR program. The Staff adds that measurable progress with well-defined time and budget constraints will ensure that the utilities are held accountable.

Michigan Electric and Gas Association (MEGA) supports measuring customer awareness of DR programs along with customer participation. MEGA indicates, however, that mandates for participation and load reduction would not be appropriate.

The Association of Businesses Advocating Tariff Equity (ABATE) comments that the Commission should use these proceedings to establish measurable goals for participation in interruptible rate offerings for large industrial customers. These goals should be based on the number of MW participating through traditional utility tariffs as well as through the option of bidding DR resources into the Midcontinent Independent System Operator, Inc. (MISO) market either directly or through a utility tariff. ABATE suggests that the Commission require utilities to submit annual progress reports, subject to comment by interested parties, on their efforts to meet DR goals. In addition, ABATE recommends that the Commission initiate a proceeding to review various interruptible service options, including a tariff that would permit large industrial customers to bid DR into the MISO market through the utility, similar to what is permitted by the Northern Indiana Public Service Corporation resource rider.

According to Michigan Chemistry Council (MCC), progress on DR participation, on a utility-specific basis, should be measured as a percentage of load per customer class, and in relation to the FERC's assessed potential for each customer class. MCC claims that these metrics should already be maintained by the utilities and would not require additional data collection.

EnerNOC Inc. comments that DR programs should be evaluated annually, by a third-party evaluator using the utility cost test and total resource cost test, to determine the extent to which the

programs are cost effective. Some consideration should also be given to the ability of DR to address utility resource constraints.

5 Lakes Energy contends that DR goals should be framed in accordance with the objective of avoiding future capacity investments. Thus, in the current circumstance where a number of generation plant retirements are anticipated, the Commission should establish realistic goals that will timely reduce load to avoid the replacement of lost capacity. 5 Lakes Energy recommends that the primary goal of DR should be framed as limiting coincident peak demand to a quantified specific level by a specific date and that the core metrics that should be assessed include participation, measureable response to price announcements, changes in load duration profiles, and program costs and benefits.

ThinkEco Inc. recommends that marketing goals should be set by rate class, and points out that emphasizing the links between TOU and DR is essential so that customers understand that combining these two efforts will result in even more savings.

EnergyHub recommends that the Commission establish goals and metrics for integrated demand side management (IDSM), which would include both energy optimization (EO) and DR. EnergyHub points out that both Consumers and DTE Electric have developed robust EO programs and DR could be added to these efforts. Accordingly, EnergyHub encourages the Commission to develop goals “that reward utilities who pursue programs that deliver both energy (kWh) and demand (kW) impacts via a single measure (i.e. smart connected thermostats) installed by existing or new EO programs.” EnergyHub’s comments, p. 1. EnergyHub adds that the Commission should ensure that residential customers participate in DR, noting that with newer connected devices, DR has become much more cost effective for this class. In terms of metrics, EnergyHub recommends that the Commission measure enrollment rates and the DR capacity actually used and

not just the capacity installed. EnergyHub also recommends that the utilities establish multi-year projects to incentivize third-party participation.

Comverge, Inc., comments that appropriate metrics will capture total MW reduction, penetration of each program among eligible customers, customer satisfaction, and avoided investment costs. Comverge adds:

[P]erformance metrics [should] not be one dimensional. Because of the considerable history behind DR programs, one of the advantages of expanding or launching new programs is that administrators typically do not have to choose between innovation and scale. By using a portfolio approach, utilities can leverage both traditional and emerging technologies to achieve MW reductions at scale while field-testing new technologies and program designs that complement existing DR and EE programs. For example, “bring your own device” (BYOD) programs could present a compelling opportunity as more customers migrate toward smart WiFi-enabled thermostats, but thus far BYOD programs alone have only been able to enroll a very small percentage of eligible households. However, if BYOD is integrated into a larger program that includes more proven technologies and recruiting techniques, it adds an element of customer choice and control that is very attractive to a small, but growing, segment of customers.

Advanced Energy Economy Institute and Michigan Energy Innovation Business Council (AEE/MEIBC) comment that the Commission should use capacity savings that result from DR programs, customer bill savings, customer awareness of DR programs, customer response to DR events, and customer satisfaction as metrics for determining the effectiveness of DR programs.

Steffes comments that the Commission should establish a goal that DR and energy storage functions within the utility are not considered as separate functions. Steffes also suggests that the Commission should set goals by customer class and that appropriate incentives should be offered to encourage customer participation.

Demand Response Oversight

DTE Electric comments that the discussion and review of DR technologies, existing utility programs, and overall industry trends should take place between the utilities, the Staff, and other

interested parties through an Integrated Resource Plan (IRP) process. In an IRP, the inputs and assumptions used by the utility would be open to public comment and review, and the Commission would provide oversight through the process. This would provide interested parties with an opportunity to provide input on DR program cost effectiveness compared against other supply side options.

Consumers comments that traditionally, TOU and DR have been reviewed in general rate case proceedings, but in the future, more informal working groups should be convened for evaluating DR. Consumers adds that working with customer groups during the design phase of various DR programs will help ensure that programs are effective.

The Staff recommends that DR review be conducted as part of a contested case in resource adequacy filings, IRP in certificate of need cases, or stand-alone IRP cases if legislation is passed to provide this type of proceeding. The Staff adds that rate recovery should be contingent upon achieving the objectives established in a contested case. At the same time, the Staff encourages the utilities to keep it and other interested parties apprised of DR program updates, noting that this will better assure the success of the companies' DR efforts.

AEE/MEIBC comments that informal collaboratives provide for input from a greater number of stakeholders. These settings create opportunities to be creative and flexible, as well as help to foster an environment that leads to enriched programs over time. Accordingly, AEE/MEIBC recommends that the Commission consider using the existing EO collaborative as a blueprint. According to them, this structure has provided a forum for stakeholders to talk through new ideas and concepts, share best practices, and help inform the utilities and other stakeholders as they develop programs that meet the needs of customers. EnergyHub and ThinkEco also support the use of a collaborative process modeled on the EO collaborative.

EnerNOC similarly recommends the use of informal proceedings, noting that some stakeholders may not have the legal or financial resources to participate in rate cases. In addition EnerNOC recommends the review of DR and energy efficiency in IRPs.

MEGA and Converge support the use of rate case proceedings, in the event that cost recovery is an issue; however, program design and evaluation should be reviewed in informal proceedings supplemented by periodic reports. In addition to in-state efforts, Steffes recommends that the Commission consider collaborating with other public utility commissions that may have more evolved DR programs. Steffes highlights a 2014 order of the Hawaii Public Utilities Commission that established significant policy goals with respect to DR and distributed energy resources.

MCC agrees with DTE Electric that DR should be planned and evaluated in the context of an IRP proceeding, whereas costs and cost-effectiveness should be analyzed in rate cases. MCC also supports a statewide DR potential study. MCC suggests that marketing and administrative costs should be assigned by customer class and that savings should be shared between the company and its customers.

Best Practices for Marketing Demand Response

Consumers comments that making programs easy to understand, coupled with well-organized and targeted marketing efforts are keys to maximizing participation in DR programming. Consumers, DTE Electric, MEGA, and others recommend messaging through a variety of channels including the company's website, social media, bill inserts, and direct sales to C&I customers. MEGA observes that mass marketing may be expensive, thus its use should be limited to programs where a high degree of customer response is likely. Steffes comments that an economic incentive for participation should be offered through tariffed rates or rebates.

DTE Electric notes that it is important to continually survey DR efforts in other states to keep abreast of best practices in DR. DTE Electric adds:

[T]he industry is increasingly looking at Integrated Demand Response Programs as a best practice for utility operation. Integrating Demand Response Programs consists of taking all savings aspects of a proposed program, such as the Energy Efficiency saving attributed to a thermostat and the DR capacity, and evaluating them in an operational context. This approach removes the internal lines of demarcation between programs, funding sources and technologies and takes a holistic view of the resource.

DTE Electric's comments, p. 5.

The Staff points out that there are many examples of successful DR program marketing efforts by other utilities that should be considered for adoption by Consumers and DTE Electric. The Staff also emphasizes the importance of a wide range of offerings to customers, noting, for example, that customers should be provided with several communications options for calling peak events; customers should have the option of viewing energy usage in real-time or the day after; and customer preferences for active energy management should be accommodated along with programs that require little or no customer participation (e.g., interruptible air conditioning).

The Staff adds that some mass media marketing can be expensive and its use would depend on the existence of a high level of potential program benefits and likely positive customer response determined through expressed interest or surveys. For larger commercial or industrial customers, the marketing would occur primarily through direct contact via meetings and conference calls.

ABATE comments that in order to maximize the deployment of interruptible service as a cost-effective, green resource in Michigan, the Commission should require utilities to conduct a marketing and outreach campaign targeted to the large industrial sector. This campaign should have the goal of educating large industrial customers regarding the existing utility interruptible service options that are available to them, as well obtaining feedback from such customers

regarding new or modified interruptible service options that could expand customer participation in such offerings.

EnerNOC recommends marketing DR programs that rely upon a combination of the utility brand and customer relationships with the tools and expertise of a third-party vendor. EnerNOC maintains that third-party vendors can bring a proven set of products and tools to the utility and the customer. MCC comments that marketing should be individualized for different customer classes, reiterating that large industrial customers will be most incentivized to participate in DR programs via participation in MISO through third-party aggregators.

EnergyHub recommends leveraging existing energy optimization outreach and communication channels and tying DR opportunities to EO programs like smart thermostats. EnergyHub adds that the utilities should use device manufacturers as a means of communicating information about DR opportunities. EnergyHub identifies additional keys to DR program success including providing customers with a range of choices, simplifying the enrollment process, allowing the market to innovate around DR incentives, and ensuring third-party access to customer data so that customers with maximum potential for DR can be identified and targeted.

AEE/MEIBC recommends that the utilities continually assess their marketing efforts for improvements that can be made with respect to customer access to program information, how customers are using engagement tools, and the number of customers who are participating in the programs. AEE/MEIBC suggests that the companies should undertake advanced marketing through data analytics and should utilize customer engagement services.

Comverge points out that the residential and small commercial customer classes are an untapped source of significant DR. In order to involve these customers, Comverge emphasizes that utilities need to provide flexibility and a range of choices so that customers are able to select

an appropriate level of engagement. As a complement to customer engagement, Comverge highlights the importance of crafting appropriate incentives for customers.

5 Lakes Energy similarly comments that customers will be incentivized to participate in DR under appropriate rate designs. 5 Lakes Energy further points out that although TOU rates can stimulate a behavioral response, more effective and reliable DR can result from the implementation of automated technologies.

ThinkEco points to best practices including unique program branding, engagement of community and local affiliate groups, partnering with retailers and distributors, using marketing feedback, and using rewards to increase customer awareness and engagement.

Other Comments

Mission:data Coalition (Mission:data) comments that although Michigan has made a tremendous investment in the deployment of over four million advanced meters, the utilities' proposals are far too focused on company offerings rather than on customer empowerment and choice. According to Mission:data, there is an expanding national market for data-enabled energy management solutions offered by third-parties. Mission:data points out:

California, Texas and Illinois are letting customers use two interfaces connected with advanced meters: (1) interval data that allows consumers to access their own energy usage data in electronic format from their advanced meters and share that data, with any third party of their choice (provided through the Green Button Connect format in California and Illinois)--and (2) enablement of the Home Area Network/Premises Area Network (HAN/PAN) radio built into each advanced meter. These states make these functionalities available to their consumers at no charge and as a component of basic utility service.

Mission:data comments, p. 2.

Mission:data comments that customer access to granular energy usage data has a much greater potential to enable customer energy savings than the customer engagement approaches described by Consumers and DTE Electric. Thus, Mission:data recommends that the companies: (1) enable

two interfaces for access to both interval and real-time data from AMI meters; and (2) provide detailed billing and tariff information to customers and third parties in a standard, machine readable format to ensure that energy management tools provide consumers with accurate estimates of the dollar savings likely to result from recommended actions.

Several commenters representing industrial customers pointed out that the development of DR in Michigan is significantly hampered by the fact that these customers are not currently permitted to bid directly into the MISO market or contract with third-party aggregators to do so. For example, EnerNOC comments that C&I customers are ready and able to provide DR resources, as long as DR programs are well designed. EnerNOC contends that a valuable additional aspect of DR programs is the ability to aggregate DR load through a third-party.

In response, DTE Electric and Consumers contend that the issue of directly bidding DR into the MISO market has already been addressed in Case No. U-16020, where the Commission continued the prohibition on retail customers bidding DR resources into MISO, either directly or through third-party aggregators. In making this determination, the Commission raised concerns about long- and short-term capacity planning, lack of oversight of third-party aggregators, the possibility that customers could enroll in more than one DR program, and the potential for cross-subsidization. DTE Electric and Consumers contend that the recommendations in this case do not address, let alone alleviate, the Commission's concerns.

Finally, a number of commenters touched on the issue of providing utility incentives for offering DR programs to customers. These recommendations included rate base treatment of DR expenses, performance incentives, and shared savings.

ABATE responds that it is a utility's obligation to provide reliable service at the lowest reasonable cost, and if DR is more economical than other supply options, then the company should

be expected to implement DR. ABATE further points out that in comparison to the construction of new generation, DR presents a much lower risk to the company and its shareholders. Thus, providing an incentive for DR provides a financial windfall for shareholders at the expense of ratepayers.

Demand Response Potential Study

The Staff observed that while Michigan utilities have experience in DR, “at this moment there exists no comprehensive, statewide system of policies or goals, let alone any generally agreed-upon method to measure the success or failure of DR.” Staff Report, p. 2. The Staff therefore agreed that an evaluation of the role of DR in Michigan’s energy future must begin with determining what is possible.

The Staff highlighted three approaches to determining DR potential: (1) program performance; (2) technical performance; and (3) end-use performance. Of these three methods, the program performance approach is the least-costly because it relies on data that is already available from existing DR programs. However, because a program performance study relies on the extrapolation of existing results; it assumes no changes to programs, and it lacks any economic analysis to determine the cost-effectiveness of DR, it is the least reliable of the three approaches.

In contrast, a technical performance approach relies on generic load profiles and engineering estimates to more accurately determine how much DR is technically possible. Although a technical performance study will not necessarily include an economic analysis of the value of DR compared to energy, capacity, and other ancillary services, an additional economic analysis could be performed.

According to the Staff, in a technical performance approach, “Study results are not bound to specific DR program designs, and load shed potential can be analyzed monthly, daily, or even

hourly, which provides insight as to the most beneficial demand response resources to target for program roll-out.” Staff report, p. 7. The cost of a technical performance DR potential study, with or without an economic study, would range from \$500,000 to \$1 million.

An end-use performance study would require very granular, individual, customer data to build a bottom-up analysis that will accurately identify DR program costs and load reduction capabilities, allowing utilities to invest in the most cost-effective technologies. An end-use performance study would require a skilled contractor, and over one year to complete, at a cost of \$1 to \$2 million.

The Staff recommended that the Commission direct Consumers and DTE Electric to undertake a technical performance study, noting that:

Results from a technical performance study will give utilities, regulators, and others in the energy industry a tool crafted specifically for Michigan and its idiosyncrasies. Since technical performance studies rely on the DR potential of various load profiles, a DR program administrator can more easily tailor programs to meet each load’s specific condition. Additionally, this study type can include an economic valuation of DR, which is necessary to accurately compare the value of DR programs to other energy resources.

Staff Report, p. 10.

The Staff recommends that the DR Team be given the task of managing the potential study including creating the scope of work, request for proposals, and keeping in communication with the selected contractor. The Staff further recommends that an advisory council comprised of utility representatives and other energy industry organizations be established. The advisory council can provide input on the scope of work and provide necessary data. The Staff also provided a timeline and estimated that a technical performance DR potential study could be completed by March 2018. Finally, the Staff recommends that the DR potential study be funded by the regulated utilities with additional funding from other interested parties.

Discussion

First, the Commission commends the commenters for their valuable insight and thoughtful responses to the questions posed in the Commission's order. Next, as we move forward, energy and capacity will become more constrained as planned (and unplanned) retirements of older generating units continue in both Michigan and in neighboring states. As the Staff observed in its comments regarding electric supply reliability in Case No. U-17992:

[D]ue to the recently announced closure of nuclear and coal-fired generators in Illinois within the next three years, the overall MISO capacity market is tightening. In comparison to last year[']s survey, the 2016 OMS/MISO resource adequacy survey shows a[] significant decrease in forecasted regional capacity surplus. Staff asserts that the loss of capacity resources throughout the region constitutes a major risk to resource adequacy in Michigan.

Staff comments dated June 29, 2016, filed in Case No. U-17992, p. 5 (footnotes omitted). In addition, as was seen this past summer and during the polar vortex events in 2013 and 2014, extreme weather resulted in shortages that in some cases necessitated the purchase of high-cost energy from the MISO market.

These concerns require a range of responses in the near, medium and long term. In the next two to three years DR might provide much needed relief during times of peak demand because DR can be deployed quickly and in appropriate increments to meet reliability requirements, at a cost potentially lower than market purchases. In addition, DR serves as a safeguard against supply shortages. In the medium term, exhausting cost-effective DR opportunities, along with reduced energy waste through energy optimization programs, can help ensure capital investments in new electric generation and distribution facilities are optimized. In the long term, DR will provide a flexible resource that can react to the changing electric supply curve as more renewable and distributed generation resources come online. In addition, greater customer involvement with DR over time will allow those customers to have greater understanding and control of their energy

choices. Nevertheless, as the Staff pointed out, Michigan utilities have only broadly identified DR potential, and this potential remains an untapped resource for peak load reduction.

Both DTE Electric and Consumers are well-positioned to expand their DR programs for residential and some commercial customers. Both utilities have invested extensively in AMI, and the companies are expected to complete their meter installations by the end of 2017. And Consumers and DTE Electric have now instituted voluntary TOU rates for customers who have AMI. In supporting the reasonableness of the investment in AMI, DTE Electric and Consumers appropriately cited the opportunities that AMI provides for demand response. In addition, both utilities have requested and received recovery of investments in direct load control switches and have identified other options for air conditioning load control.

While the hardware is in place, or nearly so, the essential focus for these programs now appears to be the development of rate designs that adequately incentivize DR from participating customers and in the effective marketing and outreach to customers who can benefit from TOU or direct air conditioning load control. As the Staff points out, the utilities have been provided the tools to implement DR programs; what remains at this juncture is the implementation of robust and cost-effective programs.

The picture, however, is less clear with respect to the availability and acceptability of DR offerings for industrial and large commercial customers. The comments filed by ABATE and the MCC indicate that there is some frustration with the currently available DR programs that are failing to meet the more individualized needs of these customers. So that the Commission can have a better understanding of how the utilities are progressing in developing DR programs for these customers, the Commission directs both DTE Electric and Consumers to, in their next rate case application filings, provide a detailed report on the status of their respective large commercial

and industrial DR offerings. The reports shall contain, at a minimum, a summary of all discussions that have been held with these customers, feedback received on current offerings, suggestions for program changes, and changes that have in fact been made as a result of these discussions. In addition, to ensure that the full amount of DR can be utilized when called upon, and thereby provide reliability benefits, the reports shall include the utilities' efforts to communicate expectations to customers that remain on legacy interruptible tariffs and the results of any DR event testing that was conducted in coordination with interruptible customers and MISO.

While several of the commenters recommended that the Commission use this proceeding to set goals for DR enrollment and capacity availability, the Commission finds that more information is necessary before any goals are established. As DTE Electric and Consumers point out, DR for the sake of DR is not the appropriate objective; to be a reasonable alternative, DR must be cost effective compared to other options. To that end, the Commission finds that the reports required under Section 11 of MCL 460.6j, MCL 460.6j(11) should be updated to include information on DR. The monthly DR report format, including event reporting, is set forth in Exhibit A attached to this order. The first monthly report, covering December 2016, shall be filed by February 15, 2017.

In addition to reporting on power supply, now including DR, the Commission directs DTE Electric and Consumer to file an annual DR report, including a narrative, with data reported consistent with the format shown in Exhibit B attached to this order. The narrative portions of these reports shall include: (1) information describing in detail legacy, pilot, and new DR programs by customer class, including an explanation of any program changes resulting from lessons learned in the previous year; (2) in the event that energy was purchased in the market, a description of the company's method for determining whether to purchase energy rather than

relying on DR; and (3) a description of any other programs that the company is considering implementing that might have potential for expanding DR resources. In addition, DTE Electric and Consumers shall include information identifying their forecasted available demand response annually from 2017-2021. These forecasts should be based upon any recent studies that have been completed and should be categorized by demand response program. The forecast should also include projected costs for marketing, other administrative costs, any capital costs, expected peak load reductions, and expected number of enrolled customers during that year. DTE Electric and Consumers shall file their 2016 annual reports in their respective dockets by February 1, 2017, and annually thereafter until further order of the Commission. Any questions or concerns about monthly or annual reporting should be addressed with the Staff DR Team.

The Commission notes that both DTE Electric and Consumers have recently completed DR potential studies for their respective service territories. The results of these analyses have not yet been made available to the Commission, and the information contained in the studies could provide a valuable starting point for determining what additional information, if any, might be needed to complete a statewide DR potential study. Accordingly, by January 30, 2017, the Staff shall convene a one-day technical conference including Consumers, DTE Electric, and other interested parties to discuss the already completed potential studies, proposed next steps, and to discuss the formation of an advisory council.

The Commission believes that the use of demand response resources is one of the least-cost ways to reduce peak demand thereby reducing future capacity requirements and minimizing the need for purchasing energy from the market during those times when it is most expensive. The reporting requirements and the DR potential study will further enable the Commission to evaluate

the use of demand response as a load serving resource to ensure that the investments in DR are used in a manner that benefits ratepayers.

THEREFORE, IT IS ORDERED that:

A. Beginning February 1, 2017, DTE Electric Company and Consumers Energy Company shall file, as part of the reports required under MCL 460.6j(11), additional information on demand response consistent with the format provided in Exhibit A to this order.

B. By February 1, 2017, DTE Electric Company and Consumers Energy Company shall each file a 2016 annual report on demand response using the format contained in Exhibit B to this order and containing the information described in this order.

The Commission reserves jurisdiction and may issue further orders as necessary.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Norman J. Saari, Commissioner

Rachael A. Eubanks, Commissioner

By its action of November 7, 2016.

Kavita Kale, Executive Secretary



INSTRUCTIONS

Pursuant to the November 7, 2016 order in Case No. U-17936 and Case No. U-18013.

As directed by the Commission in the November 7, 2016 Order in Case No. U-17936 and Case No. U-18013, the attached tables are a recommended format to assist electric utilities in reporting demand response details within their service areas. As noted in the order, DTE Electric Company and Consumers Energy Company are encouraged to submit a written narrative, which will support the data provided in these tables. Submission of this report does not necessarily ensure complete compliance with the requirements outlined in the order; each company should be certain that their filing meet the full requirements of the order.

Notes

1. In addition to those requirements outlined by the order, all filings should include:
 - a. Discussion that could assist Staff in understanding specific details about a demand response event.
 - b. Discussion that could assist Staff in understanding why a demand response event was not called.
 - c. Discussion supporting the data provided in the attached tables.
2. Definitions of key line items are included in the footnotes below each table.
3. Report all data in the units specified by the corresponding row/column.
4. Any deviation from the attached tables should be noted and justified in the narrative of the filing.
5. Please contact Dave Isakson of the MPSC Demand Response Team if there are any questions, clarifications, or concerns about the format or information required to be filed. (IsaksonD@michigan.gov; 517-284-8285).

Monthly Demand Response Report for (MONTH)

Tariff and Sheet No.	Number of service accounts enrolled ¹	Total MW enrolled ²	Total MW available ³	Total MW called on ⁴	Notes
RESIDENTIAL INTERRUPTIBLE AND PRICE RESPONSE PROGRAMS					
TOTAL					
COMMERCIAL AND INDUSTRIAL INTERRUPTIBLE AND PRICE RESPONSE PROGRAMS					
TOTAL					

MONTHLY EVENT REPORTING

¹ Report the total (cumulative) number of customer accounts enrolled in each tariffed program at the end of the reporting period.

² Report the total number of MW enrolled in each tariffed program at the end of the reporting period, even if the resource is not actually available in the reporting period (i.e. direct ac load control in the winter).

³ Report the maximum number of available MW that could have been called on, if necessary, during the reporting period.

⁴ Report the total amount of demand response for interruptible programs, or realized for price response programs, during the reported month.

DATE	HOUR	TARIFF	MW CALLED ⁵	MW RESPONSE ⁶	EVENT TYPE ⁷	NOTES

⁵ For price response programs, provide an estimate of maximum number of MW that could have responded to the price signal. Include a description of how this number was calculated.

⁶ For price response programs, provide an estimate of the MW response. Include a description of how this estimate was calculated.

⁷ For example, economic, reliability, or other (specify) type of event.

2016 ANNUAL DEMAND RESPONSE REPORT

Tariff & Sheet No.	Total demand reduction available ¹	Maximum demand reduction achieved (MW) ²	Total resource capacity reported to MISO (MW) ³	Total energy reduction achieved (MWh) ⁴	Total spending on marketing and administration (\$)	Total capital expense (\$) (excluding AMI)	Average customer response (%) ⁵	Notes
RESIDENTIAL INTERRUPTIBLE AND PRICE RESPONSE								
COMMERCIAL AND INDUSTRIAL INTERRUPTIBLE AND PRICE RESPONSE								

	On-Peak Energy Purchased (MWh)	Average on-peak energy purchase price (\$/MWh)
Annual Total		

¹ Report total demand response (i.e., potential demand reduction), in MW, available at the end of the year for each tariff.

² Report the maximum amount of demand reduction achieved during a single event in the reported year. If this is an estimate, indicate how the estimate was calculated.

³ Report the capacity amount associated with the DR program that was reported to MISO as a capacity resource (if it was reported as a resource). Also indicate the MISO category (LMR, DRR, other (specify))

⁴ Report the total energy reduction achieved, on a cumulative basis, for each DR program during the reported year.

⁵ Report the annual customer responsiveness (i.e., number of customers who responded) as a percentage of customers called for each program for the reporting year. If this is an estimate, indicate how the estimate was calculated.